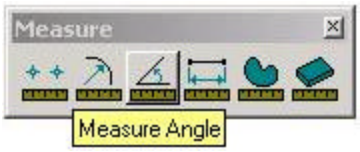
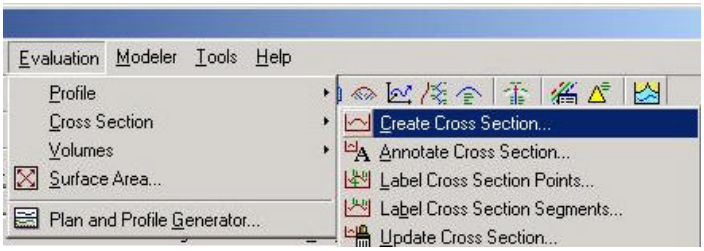
Custom Cross Sections

The last step in the design is to cut structure sections. This is done in the same manner as normal cross sections, with a few exceptions.

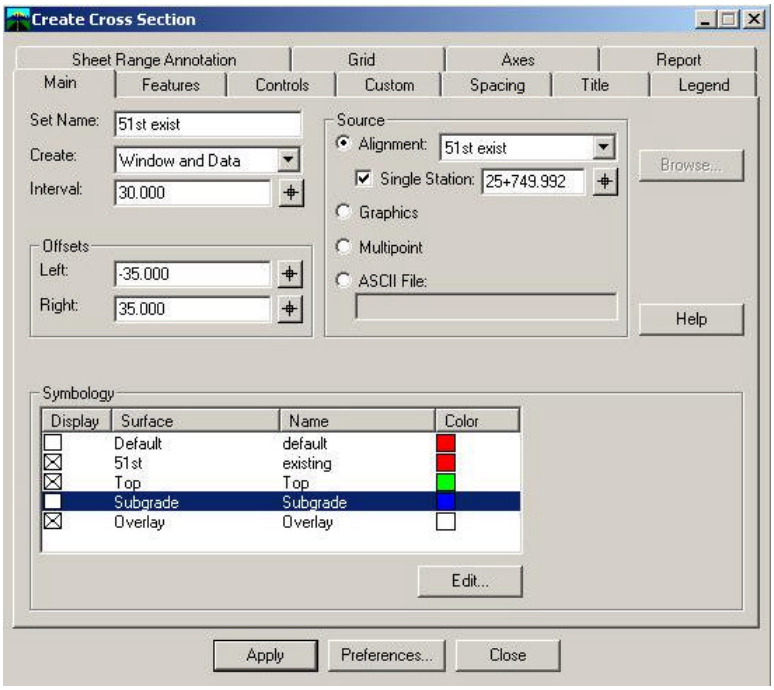


1) In the MicroStation **Measure Palette**, select **Measure Angle**. Pick the line representing the centerline of the roadway and the line representing the center of the structure.



2) Select **Evaluation > Cross Section > Create Cross-Section….**

? *The **Create Cross Section** dialog box appears.*



3) In the **Main** tab, toggle on **Alignment** in the **Source** field and select the existing alignment.

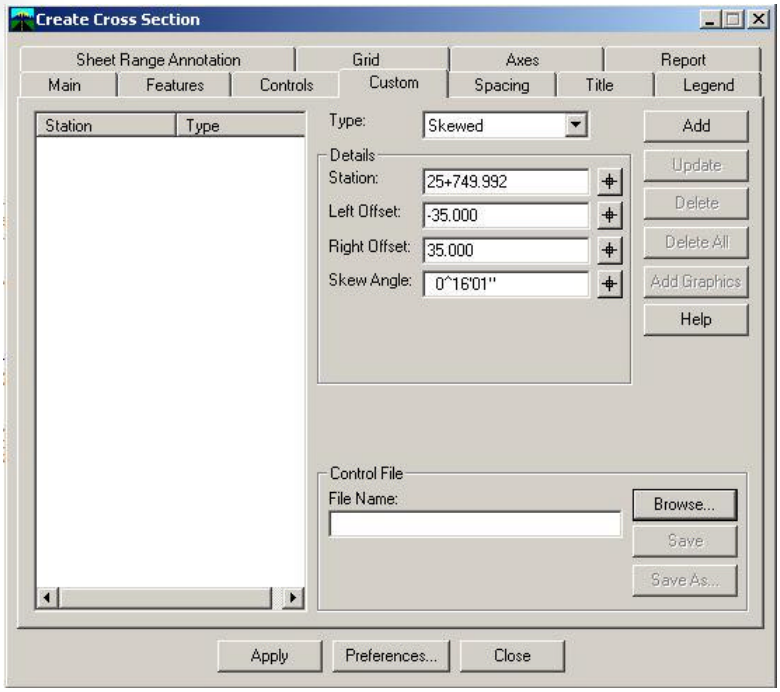
4) Toggle **Single Station** and enter **25+749.992**.

5) In the **Symbology** field, check the **51st**, **Top**, and **Overlay** surfaces.

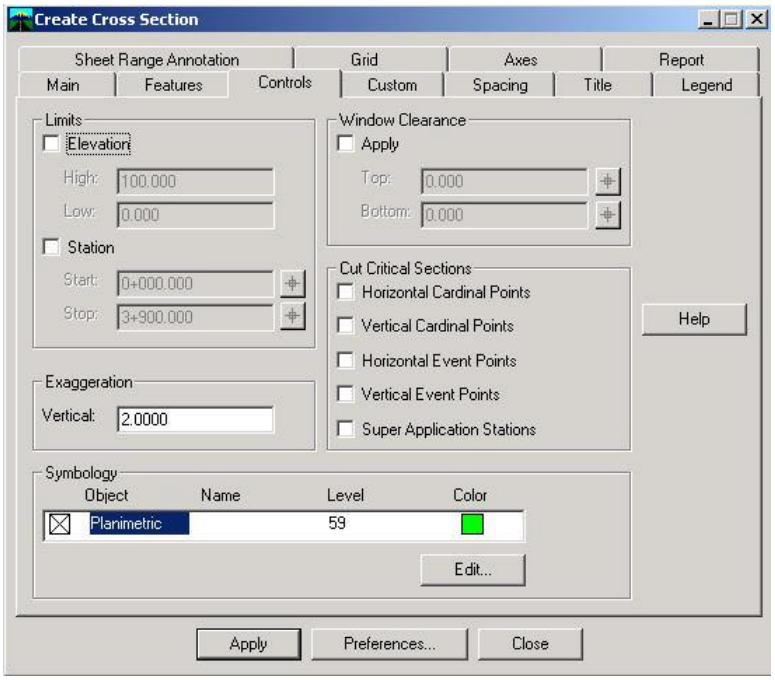
6) Select the **Custom** tab.

7) Change the **Type** to **Skewed** and click in the **Start Station** data field under **Details.**

8) Enter the same station as step 4.



- Entering the same station generates only a single cross section at a particular station along the specified alignment. If multiple cross-sections were to be extracted, click on **Station Range** in the **Type** field and enter a different **Start** and **Stop Station**. In the **Left Offset,** enter a value in the data field to define the amount of range to extract the cross section. A negative value is required to extract to the left. In the **Right Offset,** enter a value in the data field to define the amount of range to extract the cross section. Enter the value derived from step 1 above into the **Skewed Angle** data field. It is important to note that the default angle is 90° (perpendicular) from the alignment. The value derived from the measurement must be subtracted from 90°. Thus, if the angle measured is 89.733°, the valued entered will be .267°. The cross section set can be saved for use at a later time by clicking on **Save As…** and loaded later by clicking on **Browse** under the **Control File** area.



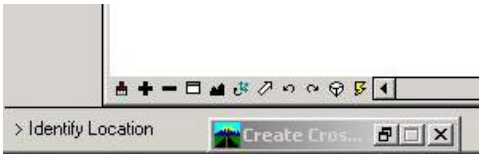
9) Select the **Controls** tab.

10) Toggle on **Planimetric** in the **Symbology** field**.**

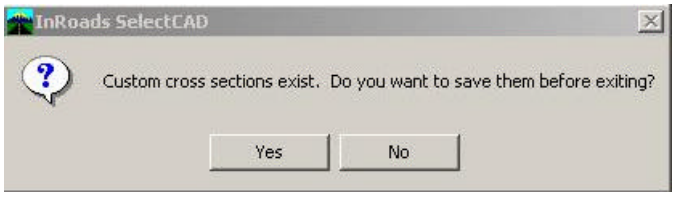
- With **Planimetric** toggled, a line will be generated in the exact location were the cross section is extracted. This is helpful when cutting a skewed cross section to verify the exact location of the section.

11) Click on **Apply.**

- The **Create Cross Section** is minimized and there is a prompt to identify a location in the bottom left corner of the view window.



12) Data click in the design file to place the cross section and click on **Close** to exit the dialog box.



- *SelectCAD prompts to save the custom cross section.*

- SelectCAD will only prompt the user to save the cross section if it was not saved in step 8.

13) Click on **Yes**, and return to the **Custom** tab.

14) Click on **Save As..** and save the file as **\Roadway\Design\structure1.xsc**.

- *Below is the cross section that was extracted.*